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Financial resources and mechanisms

Report of the Secretary-General

Contents

		Paragraphs	Page
I.	Introduction	1–3	3
II.	International finance and sustainable development	4–46	3
	A. Recent developments	6–16	3
	1. Official development assistance	6–10	3
	2. External private capital flows	11–14	4
	3. External debt	15–16	4
	B. New policy approaches	17–46	5
	1. Official development assistance	20–27	5
	2. External debt	28–31	6
	3. External private capital	32–46	7
III.	Domestic finance and sustainable development	47–64	9
	A. Integration of environmental finance into mainstream public finance	49–52	10
	B. Use of policy instruments and measures	53–64	10
	1. Subsidies	53–57	10
	2. Environmental taxes and charges	58–61	11
	3. Promotion of private-sector participation	62–64	12
IV.	Innovative mechanisms in sector finance	65–72	12

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Tables

1. Total net resource flows from OECD/DAC member countries and multilateral agencies to aid recipients 15

2. Official development assistance performance of OECD/DAC countries, 1996-1998 17

3. External debt of developing countries 18

I. Introduction

1. As part of the multi-year work programme agreed upon at the five-year review of the United Nations Conference on Environment and Development (UNCED) conducted by the General Assembly at its nineteenth special session, in 1997, the present report reviews the progress achieved in the implementation of the objectives for financial resources and mechanisms as set out in chapter 33 of Agenda 21. It takes into consideration the above-mentioned comprehensive review undertaken in 1997, and provides inputs for the discussion of financial resources and mechanisms at the forthcoming meeting of the Ad Hoc Inter-sessional Working Group on Finance, Trade, Investment and Economic Growth of the Commission on Sustainable Development, scheduled for 22 to 25 February 2000, and the eighth session of the Commission scheduled for 24 April to 5 May 2000.

2. In support of the meeting of the Working Group and the eighth session of the Commission, an expert group meeting on finance for sustainable development, sponsored by the Governments of the Netherlands, Ireland and Kenya, was held at Nairobi from 1 to 4 December 1999. The meeting was the fifth in a series of expert group meetings that have been held since 1994, and is also expected to provide inputs for the discussion of financing for development in 2001.[1]

3. Section II of the present report examines recent developments and new policy approaches in external finance, with an emphasis on official development assistance (ODA) and private capital flows. Section III turns to the discussion of domestic finance and sustainable development, focusing on the integration of environmental finance into mainstream public finance and the use of policy instruments and measures. Finally, section IV deals with innovative mechanisms in sector finance, with an emphasis on the energy, water, transport and forestry sectors.

II. International finance and sustainable development

4. In the wake of the financial crisis that started in East Asia and eventually spread to many emerging economies during 1997-1998, there have been several significant developments in the financing of sustainable development. Although official development finance (ODF) has risen from its level in 1996, that increase — of about $15 billion — has not been sufficient to prevent a sharp drop in the total net resource flow to developing countries in 1998. Further, as a consequence of the financial crisis, developing countries as a group have experienced a steep decline in private financial inflows, in particular of bank lending, since 1997. Recent trends and patterns in the financing of development, based on the Organisation for Economic Cooperation and Development (OECD)/Development Assistance Committee (DAC) statistical reporting system, are discussed below, based on data contained in tables 1 and 2.

5. Total net resource flows from DAC member countries and multilateral organizations to aid-receiving developing countries increased between 1991 and 1996 to reach a peak of $369.2 billion in 1996 (see table 1). Since 1996, however, the situation has reversed and total net resource flows to developing countries have declined by about 35 per cent to $239.6 billion in 1998. That reduction in total net resource flows during the second half of the 1990s underscores a basic shift in the pattern of development finance since the early 1990s, when flows of foreign direct investment (FDI) began to expand steadily and flows from financial markets increased dramatically.

A. Recent developments

1. Official development assistance

6. The flow of ODA from DAC member countries and multilateral organizations to developing countries was $51.9 billion in 1998, up by $3.6 billion from the level in 1997 but about $7.3 billion less than in 1994 (see table 1). Reflecting the divergent trends in private flows and ODA, the share of ODA in total net resource flows has declined sharply: between 1991 and 1998, the share of ODA fell by half, from 41.4 per cent to 20.7 per cent. During the same period, the share of ODA provided by multilateral organizations stayed about the same.

7. The fall in ODA levels since 1996 is also reflected in the decline of its share of the combined gross national product (GNP) of DAC member countries. In 1998, DAC countries as a group contributed roughly 0.24 per cent of their combined GNP as ODA (see table 2).[2] As in previous years, only four countries (Denmark, the Netherlands, Norway and

Sweden), exceeded the United Nations aid target of 0.7 per cent of GNP in 1998. Three countries, Belgium, France and Luxembourg, achieved ODA levels that were within the range of 0.35 to 0.7 per cent of their respective national GNP. All other countries recorded ODA contributions that were less than 0.35 per cent of GNP. For six countries, ODA contributions actually fell in absolute terms between 1997 and 1998.

8. As a proportion of the combined GNP of donor countries, ODA flows to the least developed countries declined from 0.09 per cent in 1986/1987 to 0.05 per cent in 1997.[3] That decline is particularly unfortunate since the least developed countries remain heavily dependent on ODA for external financing.

9. The contraction of aid budgets among DAC countries has also created special difficulties for multilateral institutions due to the knock-on effects of burden-sharing arrangements.

10. In view of the commitments undertaken to reach the accepted United Nations target of 0.7 per cent of GNP as soon as possible, the improved domestic policy environment in the majority of developing countries and the sustained growth and sound fiscal positions enjoyed by most developed countries, an immediate and sizeable improvement in ODA flows appears both warranted and feasible.

2. External private capital flows

11. The latest OECD data on flows of private capital from DAC member countries (see table 1) show that over the period 1995 to 1998, average annual private capital flows (excluding export credits) to developing countries amounted to about $215 billion, or about 71 per cent of the average total net resource flows from DAC countries to developing countries. The magnitude of the shift from ODF to private capital flows is underscored when this is compared with the $88.5 billion annual average private capital flows for the period 1991-1994 (which then represented about 51.4 per cent of the average total net resource flows from DAC countries).

12. According to the World Investment Report by the United Nations Conference on Trade and Development (UNCTAD), which deals with FDI flows for all countries, FDI flows to developing countries as a group declined from $173 billion in 1997 to $166 billion in 1998. The geographical distribution of FDI inflows to developing countries is still highly skewed and the flows of private capital flows are still concentrated in a small number of countries. In 1998, five countries received 55 per cent of all the inflows to developing countries, while less than 1 per cent of that total was shared by the 48 least developed countries.[4] The major recipient developing countries are mostly middle-income countries in Asia and Latin America which have adopted outward-looking strategies and sound macroeconomic policies. The inability of most low-income developing countries to attract FDI is of special concern because those countries remain heavily dependent on official financial flows, which are becoming increasingly limited.

13. In the long run, the flow of FDI from DAC countries has proved more stable and reliable than foreign portfolio investments (FPI)[5] and international bank loans. In 1998, FDI flows from DAC countries reached $118 billion or nearly five times the level recorded in 1991. The importance of FDI is evident from the increase in its share of private capital flows from DAC countries, from about 18 per cent in 1991 to just under 50 per cent in 1998. The steady increase in FDI flows is important because, in addition to being a source of finance, FDI promotes technology transfer and provides developing countries with access to international export markets. The rapid growth of FDI reflects the increasing globalization of production and the increasing role of transnational corporations, as well as the economic reforms in a growing number of developing countries, particularly with regard to the liberalization of foreign investment and trade and the privatization of public enterprises.

14. In contrast to expanding FDI flows, there has been a sharp downturn in international bank lending from DAC countries, including bond lending, following a period of rapid expansion between 1994 to 1996. In the wake of the Asian financial crisis, total bank lending fell from a high of $86 billion in 1996 to minus $65 billion in 1998, of which short-term capital flows sank from $40 billion to minus $70 billion during the same period.

3. External debt

15. The total external debt of developing countries and countries in transition increased by about 6 per cent, from about $2.3 trillion to nearly $2.5 trillion, between 1997 and 1998 (see table 3). Short-term debt was reduced, representing less than 17 per cent of the total as compared with 20 per cent in 1997. Three out

of four of the major debt indicators for all developing countries as a group worsened between 1997 and 1998. Following a slowdown in exports and GDP growth, the ratios of debt to exports and of debt to GDP increased to 146 per cent and 37 per cent, respectively, during that period. The amount of total paid debt service remained almost unchanged, while arrears on interest and principal payments increased slightly (see table 3).

16. Total external debt for countries in sub-Saharan Africa has increased by about 2.9 per cent, from about $220 billion in 1997 to just over $225 billion in 1998. Debt indicators reflect the debt insolvency problems of those countries. Paid debt service was equivalent to nearly 15 per cent of exports, but only a fifth of scheduled debt service was paid, the rest representing the total of past accumulated arrears on interest and principal payments. The debt-to-exports ratio exceeded 230 per cent in 1998. The level of foreign exchange reserves was so low that despite the small amount of short-term debt, the ratio of short-term debt to reserves reached 212 per cent in 1998 (see A/54/370).

B. New policy approaches

17. The generally lower levels of ODA, coupled with higher private capital flows to developing countries, pose new challenges to both donor and recipients alike. In assessing the future role of ODA, the impact of globalization on public and private flows to developing countries and the continuing debt problems of the poorer developing countries should be taken into account.

18. With regard to the potential for increasing public flows of resources, key considerations include the evolution of the role of ODA, the potential for building on the upturn in ODA levels in 1998 to further raise ODA to poor countries, and the possibilities for improving the effectiveness of ODA in achieving sustainable development goals. This is particularly important for the least developed countries and other low income countries in sub-Saharan Africa, which receive relatively little private capital.

19. With regard to private capital flows, the increasing flows to developing countries as a group is still limited to a narrow range of recipients. The skewed distribution of those resources in favour of the more advanced developing countries has implications, in particular for efforts to advance the goals of sustainable development in the poorer countries.

1. Official development assistance

20. As noted above, an important development during the latter half of the 1990s has been the decline in ODA contributions, coupled with a rise in private capital flows. Three important issues need to be addressed: the shift to a more diverse role for official development assistance; the attainment of adequate levels of ODA; and improvements in the effectiveness of ODA.

21. The perception that ODA has not always lived up to its expectations has shaped, to varying degrees, the new approach of donors to development cooperation. The perceived shortcoming of ODA in the past has been attributed to a number of factors, including corruption, the use of a project approach that encouraged piecemeal interventions or massive investment in low-priority areas, and a lack of medium-term coherence. The measures proposed in recent years to enhance the quality and effectiveness of aid include a focus on medium-term development cooperation; a shift from projects to programmes; and an increasing emphasis on policy dialogue, partnership, sound management of public affairs and participation.

22. The DAC countries, which account for virtually all ODA flows to developing countries, see a more focused role for development cooperation in which the fight against poverty is assigned central priority on the basis of the international objectives it set out in 1996.[6] The new goals focus on poverty reduction in developing countries and specify targets in social and environmental areas to be met by 2005 and 2015. Within the revised framework, the primary role of ODA from the DAC countries is to support vital programmes which support those objectives. At the same time, ODA is also intended to reinforce the capabilities or institutional development of developing countries to enable them to harness their domestic resources and attract external private flows to support their development. An important role of aid is to assist that process, through the development of partnerships. ODA is also seen as a means to promote policy coherence through support of environmental and social policies that can complement evolving trade policies, even though that may prove a difficult task. In addition, ODA can have an instrumental role in financing the production of global and regional public

goods, such as crucial infrastructures or goods, environmental goods, regional and global peace, security and respect for human rights. For example, efforts to reduce the global problems which have roots in large-scale poverty could contribute to the broader recognition of the importance of such global public goods.

23. As developing countries move away from a heavy reliance on public capital flows and become more dependent on private capital flows from FDI, FPI and increased domestic savings, Governments need to ensure that they put in place the policies, institutions and capacities needed for a market economy to function in an effective and stable fashion. In that context, corporate responsibility exercised in dialogue with other stakeholders assumes greater importance.

24. The poorest countries, including the least developed countries and most of sub-Saharan Africa, are still in need of continued and increased ODA. Poverty remains the paramount concern in those countries and ODA should be more focused on them, with aid being carefully targeted to achieve maximum effectiveness. Furthermore, there are countries which have achieved some integration into the global economy but whose economic and social conditions are still fragile. The countries in that group face a high risk of losing all their gains and becoming marginalized if support from ODA is inadequate.

25. For those middle-income economies that have been integrated into the global financial system, particularly in Asia and some Latin American countries, ODA is less important as a source for financing poverty alleviation and environmental protection than as a means to help them improve the institutional infrastructure and governance of their financial sectors.

26. It is important for both donors and developing countries, particularly the least developed countries and other countries in sub-Saharan Africa, to improve the effectiveness of aid. The effectiveness of aid can be improved, for example, by better aid coordination and management, and more strenuous efforts to deter corruption and to ensure that public sector investments do not run counter to stated environmental and social objectives of sustainable development. In order to ensure effective use of ODA, Governments should identify and address the administrative, political and economic bottlenecks to full disbursement. Donors, on their part, should further reduce the practice of tied aid as it tends to raise the prices to aid recipients by as much as 10 to 30 per cent,[7] as well as other conditions which tend to impede effective utilization of ODA.

27. The role of regional institutions should be strengthened. Many environmental issues, such as deforestation and desertification, are transnational in nature and cannot be adequately addressed by any individual government. In those cases, regional development banks may be the most effective source of funding for such cross-national problems. At the international level, aid should be used to bridge the gap between humanitarian crises and sustainable development, and projects should be chosen on the basis of their potential for capacity-building and their ability to further sustainability goals in aid recipient countries.

2. External debt

28. The ability of the poorest economies to attract foreign private capital is, to a large extent, still hampered by their high level of external debt relative to export capacity. The high level of debt payments has a negative effect on domestic investment, including the investment necessary to attract private capital. The debt burden of heavily indebted low-income countries has not improved in the last several years, and remains a serious burden that hampers their development potential.

29. During the past few years, important initiatives have been undertaken by the international community to bring about changes in international debt strategies, such as the efforts to make the heavily indebted poor countries (HIPC) initiative more effective and efforts by the Paris Club creditors to involve the private sector (including bond holders) in a comparable treatment of developing countries' debt. The enhanced HIPC initiative that would provide deeper, broader and faster debt relief received major support from the meeting of the Group of Seven Major Industrialized Countries (G-7) leaders at Cologne in 1999[8] and was adopted by the Bretton Woods institutions in September 1999. Among other things, it provides for a deeper degree of debt cancellation (up to 90 per cent or more) for the eligible countries.

30. The enhanced HIPC initiative framework aims to deepen debt relief and create a safety cushion against an unanticipated and extended decline in export

earnings. It also aims to increase countries' prospects for a permanent exit from unsustainable debt. By establishing lower benchmarks for sustainability in the enhanced HIPC initiative, the likelihood is greater that individual countries, with appropriately cautious debt management policies in the future, will avoid future debt-servicing problems and will not be perceived as having a debt overhang. The enhanced HIPC initiative will result in lower debt-service payments and thus provide more room for increased spending in priority areas, such as primary health care and education.[9] The enhanced framework includes important measures to strengthen the link between debt relief and poverty reduction. The speedy implementation of the enhanced HIPC initiative is strongly urged since it will allow as many countries as possible to qualify for assistance under the initiative by end 2000.

31. For poor countries not qualifying under the HIPC initiative, the G-7 countries have proposed that the Paris Club consider a unified 67 per cent reduction under the Naples terms. For other debtor countries applying for non-concessional reschedulings, there would be an agreed increase on the limit of debt swaps. For qualifying countries, forgiveness of bilateral ODA debt was supported, through a menu of options, on top of the amounts required to achieve debt sustainability. There was also a recommendation that new ODA be extended in the form of grants.

3. External private capital

32. Since FDI and FPI are increasing in importance as sources of external finance for developing countries, it will be necessary for Governments in developing countries to increasingly identify and implement policies that will enable them to more effectively direct FDI and FPI into sustainable development activities.

33. In general, FDI inflows produce a positive impact on output, employment and tax revenues, and can provide important externalities in the form of the transfer of technology, management know-how and marketing networks. It can also provide the impetus for host developing countries to enhance their policy framework, improve economic management and transparency and develop their financial infrastructure.

34. FPI, on the other hand, can help to reduce the cost of capital to local firms, promote a more efficient allocation of capital for investment, and strengthen local capital markets through improved liquidity and supervision. FPI can also play an important role in financing local infrastructure. However, the high volatility in FPI flows can at times impart a negative impact on the balance of payments, and can induce both exchange-rate instability and high volatility of asset prices, particularly in weak and poorly regulated domestic financial systems.

Attracting foreign direct investment and foreign portfolio investment

35. Private capital flows into developing countries, especially to emerging markets, is expected to continue to grow rapidly into the foreseeable future. In order to attract more FDI, in recent years many developing countries have created better enabling environments for FDI, although that has not always led to increased FDI inflows for all countries. In general, the level and direction of FDI flows are related to the size of markets, wage levels, political stability, macroeconomic stability and incentive systems. In that regard, proactive promotion policies can be effective in attracting FDI.

36. On the other hand, the major factors which drive FPI flows — global liquidity, macroeconomic policies of source countries, international investors' strategies — are more complex and depend on the external environment as well as the internal economic fundamentals of host countries. The strong growth in pension and mutual funds brought on by changing demographic trends in OECD countries, for example, has contributed to increased liquidity in international capital markets.

External private capital and sustainable development

37. It will be an important challenge to attract more foreign investment and at the same time direct these to sustainable development activities. It is crucial that developing countries ensure that FDI contributes to sustainable development by paying due attention to the impact of FDI on environmental and social as well as economic goals. While concerns have been expressed that FDI tends to be directed towards countries with lower environmental standards or lax enforcement, the evidence for such concern is weak. However, it is important to integrate environmental and social considerations into strategies and plans for national development, especially in those sectors having a significant environmental impact, such as transport and

energy. Experience from the Central and Eastern European (CEE) countries indicates that where Governments have addressed concerns about potential environmental problems related to a particular investment, those countries appear to have had more success in attracting FDI.[10] The emerging consensus of opinion is that foreign direct investment has been an important element in bringing about concrete environmental improvements in the CEE countries.

38. The largely positive experience of CEE Governments in integrating environmental concerns into privatization indicates that the State can assume an important role with respect to environmental concerns. An important element of that strategy is to develop stronger regulatory frameworks for FDI, thereby strengthening its political acceptability. The consequent reduction in uncertainty also enhances investor confidence. The strategy should include the development of environmental legislation as well as technical capacity for evaluating the environmental impacts of private-sector investments and for building reasonable environmental conditions into operating permits. Two important regulatory tools are the environmental impact assessment (EIA) and the environmental audit. In several CEE countries, notably Romania and Bulgaria, environmental audits are now mandatory whenever an industrial property changes ownership.[11]

39. However, those two tools to control environmental risks from FDI often require technical expertise that may be in short supply in developing countries. Therefore, there is need to develop the technical capacity, including familiarity with industrial processes, to understand the environmental problems faced by existing industries and to determine appropriate conditions for operating permits.

40. Internationally recognized standards should be used by both FDI source and host countries to provide potential private sector investors with predictable, consistent and clear rules concerning their environmental responsibilities. The World Bank *Pollution Prevention and Abatement Handbook 1998*,[12] and United Nations Environment Programme (UNEP) efforts to develop internationally recognized guidelines on best environmental practices for various industrial sectors are important initiatives in that regard. In addition, there is need for more guidelines, such as the Forest Stewardship Council's certification scheme for sustainably produced wood products. A useful rule of thumb when establishing environmental standards with respect to investments is that all new "greenfield" investments should comply with internationally recognized environmental standards for that sector.

41. In the case of investments where the risk of environmental damage is significant, investors can be asked to put up performance bonds or other guarantees that remedial steps will be taken should damage occur. There should also be clear rules setting out private responsibility for damage to the environment from economic activities. Furthermore, in order to promote greater transparency and public participation in ensuring environmentally sound project design and operations, there should be a supportive legal environment to enable NGOs and major stakeholders to act as constructive and independent partners.

42. In the area of portfolio investment, there is increasing evidence that corporate environmentalism is becoming mainstream practice — pension fund managers and trustees of charitable organizations have expressed interest in financing socially responsible investments (SRIs). There is some evidence that financial markets do reward firms for good environmental performance. Therefore, Governments could identify and explicitly package appropriate investment opportunities as SRIs as a means to attract additional portfolio investment. An additional stimulus to SRIs is provided when countries introduce environmental liability legislation which creates an explicit link between environmental risk and financial risk that can be priced in the financial markets. It will also be useful for countries to introduce regulations that promote environmental and socially responsible screening of investments; for example, in the United Kingdom all pension funds are required to report on their SRI policy. There is also a need to put in place a standardized screening methodology for benchmarking and ranking investments according to sustainability criteria.

International cooperation

43. The fast pace of globalization, the competition for FDI and the sheer size of many transnational corporations (TNCs) can make it difficult for a host country acting alone to set in place adequate environmental controls over incoming FDI. Pressure is therefore mounting on other stakeholders, including investors' home countries and international actors, to take a larger share of responsibility in that area. Often,

many types of FDI do not occur without some form of governmental, bilateral and/or multilateral co-financing, risk insurance and guarantees. In particular, most large infrastructure projects are structured on a "non-recourse" basis, and private commercial banks that provide financing to subsidiaries of TNCs, for example, do not have access to the parent company's assets in the case of project failure and loan default. Therefore, private financing is often not available unless parts of the project's financial risk are covered through publicly financed export credit and investment insurance agencies, and/or through private sector support provided through international financial institutions (IFIs).

44. International financial institutions have been in the forefront with regard to taking account of the environmental impacts of their project development and lending activities. Today, virtually all IFIs have environmental guidelines in place to help them assess environment-related risks prior to determining which projects to finance. For example, the World Bank requires all proposed projects to be screened to determine their potential environmental impact, including private-sector projects financed through the Bank's International Finance Corporation (IFC) and Multilateral Investment Guarantee Agency (MIGA). Environmental assessments are required for projects identified as posing significant environmental risk, and mitigation efforts — including support for developing the home country's institutional capacity for environmental protection — can then be built into the project. Where a host country's framework of environmental rules and capacity for enforcement is still rudimentary, IFIs and bilateral donors can assist host countries with institution-building and developing the expertise necessary to effectively manage the environmental impacts of economic activities.

45. Home countries' Governments and NGOs can also encourage TNCs to use more stringent home country standards, wherever they operate in the world, building on the practice of the many TNCs which have already instituted a uniform environmental management system throughout their global network. However, to ensure that FDI helps to raise the average environmental performance in recipient countries, host countries may consider entering into benchmarking agreements with foreign companies in which they commit themselves to maintaining the highest social and environmental standards that can be found and to report regularly on their performance in that regard. At the same time, Governments in both home and host countries can provide incentives and promote voluntary agreements that enhance corporate governance to ensure that FDI does not compromise long-term sustainable development goals.

46. It is important that the global public is concerned about the economic, social and environmental consequences of foreign and domestic investment. The emerging global civil society can help to ensure that home country and international institutions act responsibly with regard to FDI and its impacts, as in the increasing use of international coalitions of NGOs, parliamentarians and unions to focus attention on the environmental impacts of proposed or ongoing projects.

III. Domestic finance and sustainable development

47. For many developing countries, in particular countries that are unable to attract sufficient external private capital resources, it is essential that Governments undertake greater efforts to promote the mobilization of domestic sources of capital. Governments need to establish the basis for an enabling environment by undertaking appropriate fiscal and monetary reform. Many developing countries have also lifted controls on interest rates, reduced government-directed credit, developed new instruments for long-term investment financing and built a more effective regulatory and supervisory structure for the financial sector. Financial liberalization, together with more relaxed control of international financial transactions, has allowed some countries to increase their integration into the global financial market. However, while that has promoted an improved allocation of financial resources, it has also exposed some fragile financial systems to destabilizing speculative pressures.

48. In many developing countries, the development and strengthening of the formal financial sector is often inadequate to serve the entire economy. Small-scale borrowers may be overlooked, leaving them to rely on an informal financial sector. There is an increasing international focus on fostering institutional innovations in microfinancing to cater for the needs of small-scale borrowers, especially in the poorer

countries. Loans provided to small groups of borrowers in a single community, for example, can be an efficient mechanism for providing finance for production to the poorer segments of society and thus promote social goals of sustainable development.[17]

A. Integration of environmental finance into mainstream public finance

49. An important issue in designing the policy framework for the mobilization of domestic financial resources is the integration of environmental finance into mainstream public finance. Implementing the environmental component of sustainable development goals requires cooperation between various ministries, in particular the ministries of finance and environment. Cooperation can often become difficult because of conflicts of interests between those ministries. Therefore, there is an urgent need to develop guidelines that can alleviate short-term conflicts and mainstream the financing of the various components of sustainable development.

50. It is generally accepted that public finance should be designed to achieve allocative efficiency. Where practicable, all funds collected by the government from taxation and transfers should be consolidated and then disbursed to specified activities so that the marginal social benefit from all activities is equalized, i.e., there should be little or no earmarking of funds to be spent only on designated activities. Allocative efficiency is most likely when government revenue allocation is determined in an atmosphere of transparency and accountability.

51. In practice, however, there is evidence that suggests that citizens are more in favour of financing increases in environmental investments when earmarking is used. For example, when Governments face tight budget constraints because of external obligations or because of a small tax base, earmarking may be an acceptable method of financing for sustainable development, including its environmental dimension. Accepting that pragmatic approach may alleviate the tensions between traditional public finance responsibilities and responsibilities for environmental investment.

52. Attempts should always be made to finance environmental investment from general revenues, but when earmarking is used in order to achieve certain environmental goals it should be carefully justified, for example by using the proceeds of environmental taxation to mitigate the prior environmental damage that prompted the tax in the first place. Moreover, in order to make officials more accountable for the use and effectiveness of earmarked revenues, all ministries should be required to disclose all earmarked funds in their control and the specific uses to which those funds have been assigned. It is important to mitigate the potential inefficiencies of earmarking through the use of cost-benefit analysis to help identify investment priorities and the implementation of strict rules of expenditure control, accountability and transparency. In that regard, the capacity of developing countries to carry out effective cost-benefit analysis of projects should be further improved.

B. Use of policy instruments and measures

1. Subsidies

53. Subsidies take a variety of forms. They can involve direct budgetary transfers from Governments to producers, indirect transfers from consumers to producers (in the form of higher prices than those prevailing on world markets) or preferential tax treatment (i.e., tax revenues foregone). They can also impact on output, purchases, raw material, labour and capital inputs, income or profits. Subsidies are frequently introduced for social or economic reasons. However, in a number of sectors, they often fail to achieve their intended objectives, leaking away to unintended recipients, such as input suppliers or customers, or becoming incorporated into the prices of factors of production with inelastic supply.[18]

54. There is still a need for both developed and developing countries to consider reducing or eliminating those subsidies which run counter to the goals of sustainable development. For example, it is widely recognized that the removal of environmentally harmful subsidies is a difficult task for most Governments although recent experience from Eastern Europe and other regions suggest that the onset of economic crisis can offer useful opportunities for rapid reduction in explicit subsidies. However, even when no economic crisis exists and there is sufficient political will to undertake subsidy reduction, subsidy removal is best approached as part of a viable policy package.

55. There is need for a careful review of the nature and extent of major subsidies in order to identify the gainers and losers. That review should examine what the original underlying rationale was for the subsidies and what potential social implications there are if certain subsidies are removed. In general, subsidies linked to production or consumption processes in natural resource intensive sectors should not be utilized, with exceptions being low prices for small quantities, for example of drinking water or electricity for household use. In particular, subsidy reform can be made more politically acceptable if the reform package also identifies and provides alternatives or some form of compensation to "losers" from the subsidy reform.

56. It is important that when the commitment to subsidy reduction has been made, the subsidies be phased out according to a preannounced time schedule. That exercise needs to be supported by a regular report that identifies a country's major subsidies and provides estimates of their real total costs. Not only does that approach increase the transparency of the reform process but it can be an important means of building public support for subsidy reduction.

57. The evidence of the efficacy of this approach is limited. In particular, more work must be done to determine how Governments can ensure that explicit subsidies are not simply replaced with hidden subsidies, such as the practice of cross-subsidization among different classes of ratepayers. More guidance should also be given to Governments with respect to environmental subsidies.

2. Environmental taxes and charges

58. There is an increasing amount of experience with environmental taxes and charges in both developing and developed countries. While those instruments can improve cost-effectiveness and confer positive environmental effects, their implementation requires strong institutions in the financial and environmental sectors. A major barrier to the use of environmental taxes and charges in developing countries is the lack of institutional capacity. Furthermore, there are complex tax design requirements and the mainstream public finance agencies have limited experience in dealing with the introduction of such taxes. On the other hand, tax fraud is more difficult with environmental taxes than with income taxes, which may provide an additional benefit to the use of environmental taxes.

59. Revenue from environmental taxes is still low in most countries. Data from 18 OECD countries show that revenues from environmentally related taxes accounted from between 1.75 to 4.5 per cent of GDP in 1995. About 90 per cent of the revenues generated from those taxes come from non-industrial sources. Currently, some OECD countries are engaged in policies to "green" the tax system by increasing environmentally based taxes while reducing income taxes and social security premiums. OECD studies which looked at the social, economic and environmental consequences of green taxes have found that tax and environmental policies can be mutually supportive.[15]

60. Environmental tax reform has accelerated in European Union (EU) member countries. In those countries, broad-based environmental tax reform is being undertaken in which distortionary taxes on labour are being gradually replaced with revenue-neutral environmental taxes. Those countries have found that the barriers to implementation of such taxes, particularly on energy, can be mitigated through careful tax design. The most important of those barriers is political opposition arising from concerns about the negative effects of pollution taxes on international competitiveness. However, in such situations international cooperation may lessen any such effect. There are also concerns that energy taxes will result in a loss of jobs in energy-intensive sectors which have been addressed by the use of differentiated tax rates on transport, industry, households and the gradual implementation of the new taxes. Taxes are also indexed to inflation to ensure that they remain effective. The experience in the EU suggests that developing countries may benefit from the increased use of environmental taxes and charges provided that they are carefully designed.

61. The choice of the appropriate instrument for achieving sustainable development objectives should be based upon cost efficiency, taking into account such factors as the nature of the damage and the uncertainty of its effects, the geographical scale of the environmental problem, and the administrative and enforcement costs as well as public acceptance of the various instruments. In practice, second-best rather than best solutions are available, and regulations may be applied while taxes and charges are in place and vice versa. Given that various instruments interact in complex ways and each policy instrument has its

advantages and disadvantages, the choice of economic instruments can be difficult. However, experience has shown that in some situations, instruments that are combined efficiently, effectively and equitably can produce good results. For example, in the Netherlands, the issue of water pollution has been addressed by a tightening of permit regulations, the introduction of charges and financial incentives for technological improvements. In the area of biodiversity conservation and sustainable use, a recent OECD study concluded that because of the inherent complexity of biological systems and the range of pressures that act on them, a "bundle" of carefully designed and complementary incentive measures are often necessary to provide the appropriate signals to prevent biodiversity loss.[16]

3. Promotion of private-sector participation

62. Private-sector investment can be effective in promoting economic growth, and can at the same time have positive social or environmental effects. Examples are efficient power production, water supply and treatment, renewable energy, waste management, and the application of cost-effective and clean technology. It is important for Governments to provide the necessary framework for sustained private investment, including macroeconomic, legal and environmental policy frameworks that are clear, credible and stable. Attention must also be given to such issues as the protection of property rights and access to finance by the private sector. In particular, access to finance by the domestic private sector will be enhanced by efforts to deregulate domestic financial markets, promote co-financing and venture capital funds, and build-operate-transfer schemes for the financing of infrastructure projects.

63. However, not all private domestic investment will assist countries in achieving sustainable development. Increased private-sector financing of sustainable development can be hampered in several ways. In many developing countries, there may be limited capability to design effective environmental regulation and market-based instruments; in such cases, external assistance for capacity-building should be a priority. The private sector may face problems meeting sustainability objectives in privatization schemes, and there is a need for careful project appraisal, assessment of environmental liabilities and selective government or multilateral guarantees. Privatization outcomes can also be jeopardized by a lack of transparency, the absence of a level playing field, inadequate regulatory supervision and low political acceptance. In such cases, it is important for Governments to ensure there is a competitive process and consultation among stakeholders.

64. Lack of public support for environmental protection can also be a major stumbling block in encouraging private investment in sustainable development. Governments working together with and providing support for NGOs and civil groups can raise the level of public awareness of sustainable development issues. Information should be provided to civil society in developed countries to aid the public in encouraging sound corporate governance.

IV. Innovative mechanisms in sector finance

65. The past 10 years have witnessed the development of innovative instruments for sector finance, especially for the infrastructure sectors, such as power, water, sanitation and public transport, as a result of (a) an increasing realization that experience with the traditional model of public provision and financing has been disappointing in terms of quality of service, coverage and costs; and (b) declining sources of finance as ODA has stagnated and public expenditures have been cut. Governments are seeking private capital at home and from abroad to meet the infrastructure financing gap and as a means of introducing market mechanisms to improve the quality of service.

66. At the same time, financial markets have evolved in complementary directions by developing innovative financing instruments, including public-private partnerships, new forms of credit guarantees, subnational financing without sovereign guarantees, new microfinancing mechanisms for the informal and rural sectors, and joint ventures. Some of those instruments, for example, have been of interest to institutional investors for infrastructure projects. Similarly, institutional changes in developing countries, such as decentralization and devolution of taxing power to local governments, have created opportunities for subnational governments to access the international capital market without relying on central government guarantees.

67. While those innovative financing mechanisms have accessed new, previously inaccessible sources of funds for sector investments and, in combination with a more realistic pricing of services, have enhanced the financial sustainability of sectors, such as power, water, sanitation and transport, they have not necessarily enhanced environmental sustainability. Furthermore, despite the obvious similarities among the innovative financing instruments in sector finance, there are also significant differences.

68. In the power sector, for example, the main innovations have been in terms of deregulation and the introduction of competition through independent power producers. Deregulation has allowed energy prices to be gradually freed to reflect the full cost of supply. The energy utilities have begun to access domestic and foreign capital markets by demonstrating to investors acceptable financial practices and competitive returns. However, the new financing mechanisms for the power sector are not without problems with regard to environmental sustainability. The financial incentives to investors favour conventional thermal power, and low energy prices for consumers (as a result of competition) favour increased energy consumption.

69. Renewable energy is generally more expensive for consumers than conventional technology, in part because of fossil fuel subsidies, a failure to internalize the environmental benefits of renewables and the environmental costs of fossil fuels, low costs of fossil fuels, lack of support for research and development in the subsector and untapped scale economies. Recent innovations include "percentage renewable energy requirements" for power distribution companies and green energy procurement policies. Policy reforms should promote full cost pricing of fossil fuels, incentives for research and development, and financing mechanisms tailored to the needs of renewable energy.

70. In the water sector, the major innovation of the last decade is the increased access to domestic and international capital markets through (a) build-operate-transfer (BOT) arrangements; (b) public offerings of shares of municipal water utilities; (c) issuance of municipal revenue bonds secured by user fees; and (d) establishment of municipal development banks. For further development of these financial mechanisms, it is imperative that there be a stable investment environment in the sector, including predictable fiscal relations between local and central governments; autonomous public utilities with secure income; transparent city budgets; protection of creditors' rights; and an independent regulatory body. Bundling water and sanitation services, fee amortization and microfinancing schemes have also contributed to increased financial sustainability of the sector.

71. The transport sector has benefited from many similar financial mechanisms. BOT and related mechanisms have been used in the construction and operation of toll roads. Privatization through public bidding has been used to improve urban transport systems, such as metro and rail services in Latin America. To ensure environmental sustainability along with financial sustainability, environmental costs must be fully internalized into the cost of private vehicle ownership and use. Public bidding processes must be designed to encourage bidders to take into account the environmental costs and benefits of their potential investment. In Africa, earmarked taxes and fees have been combined with the creation of autonomous road agencies to maintain the rural road system and improve the collection of fuel taxes.

72. Sustainable forestry management, which has traditionally been difficult to finance, has received a financial boost from emerging carbon markets, the Clean Development Mechanism (CDM), bio-prospecting contracts with pharmaceutical companies and the rapid growth of eco-tourism. Furthermore, some countries have introduced systems of payments for watershed protection and other environmental services. Despite that progress, much remains to be done to actually implement CDM, further develop carbon markets, fully price access to national parks, develop trust funds for forest protection and ensure that local stakeholders benefit from those innovative financing mechanisms.

Notes

[1] Expert group meetings were held at Kuala Lumpur (1994), Glen Cove, New York (1995), Manila (1996) and Santiago (1997) as part of the preparatory process for the Commission on Sustainable Development at its second, third, fourth and fifth sessions, respectively. Financial support for the four meetings was provided by the Governments of Japan, the Netherlands and Malaysia, the Asian Development Bank, the United Nations Development Programme and the former Department for Policy Coordination and Sustainable Development of the United Nations Secretariat. Additional in-kind support was provided by the Governments of Malaysia, the Philippines and Chile.

[2] Compare this to the earlier contribution levels of 0.34 per cent for 1981-1982 and 0.33 per cent for 1986-1987; see OECD, *1998 Development Cooperation Report* (Paris, 1999), table 4.

[3] See OECD, op. cit., table 31, accessed at: http://www.oecd.org/dac/htm/tab31e.htm.

[4] See UNCTAD, *World Investment Report: Foreign Direct Investment and the Challenge of Development* (Geneva, 1999).

[5] Including bank lending and the purchase of shares, bonds and real estate; see OECD, op. cit.

[6] See OECD, *Shaping the Twenty-first Century: the Role of Development Cooperation* (Paris, 1996).

[7] See Oliver Morrisey and Howard White, *Evaluating the Concessionality of Tied Aid*, Institute of Social Studies, Working Paper, Sub-Series on Money, Finance and Development, No. 53 (The Hague, 1994); and Catrinus Jepma, *The Tying of Aid* (Paris, OECD, 1991).

[8] See report of G-7 finance ministers on the Cologne debt initiative, Cologne, 18-20 June 1999, accessed at: http://www.state.gov/www/issues/economic/summit/99finance_report.html.

[9] International Monetary Fund and World Bank, "The HIPC initiative: a progress report", ICMS/Doc/53/99/4.

[10] See Gretta Goldenman, "The environmental implications of foreign direct investment: policy and institutional issues", in OECD, *Foreign Direct Investment and the Environment* (Paris, 1999).

[11] Ibid.

[12] Washington, D.C., 1998, accessed at: http://www-esd.worldbank.org/pph/.

[13] See Microcredit Summit Declaration and Plan of Action, Washington, D.C., 2-4 February 1997, in *World Bank News*, 6 February 1997.

[14] See OECD, *The Interim Report on the OECD Three-Year Project on Sustainable Development* (Paris, 1999).

[15] Ibid.

[16] See OECD, Handbook of Incentive Measures for Biodiversity: Design and Implementation (Paris, 1999).

Table 1
Total net resource flows from OECD/DAC member countries and multilateral agencies to aid recipients

	Billions of current dollars								*Percentage of total*		
	1991	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998[a]*	*1991*	*1994*	*1998[a]*
I. Official development finance (ODF)	**84.5**	**78.3**	**82.4**	**84.5**	**87.6**	**73.5**	**75.3**	**88.3**	**61.2**	**37.5**	**36.9**
1. Official development assistance (ODA)[b]	57.1	58.3	55.5	59.6	59.1	55.8	47.7	49.7	41.4	26.4	20.7
Bilateral	41.4	41.4	39.4	41.3	40.6	39.1	32.4	35.1	30.0	18.3	14.7
Multilateral	15.8	17.0	16.1	18.3	18.4	16.7	15.3	14.5	11.4	8.1	6.1
2. Official Aid (OA)	6.6	6.0	6.0	6.9	8.4	5.6	5.6	7.0	4.8	3.0	2.9
Bilateral	5.0	5.2	5.2	5.5	7.1	4.0	4.0	4.5	3.6	2.5	1.9
Multilateral	1.6	0.8	0.7	1.3	1.3	1.5	1.6	2.5	1.1	0.6	1.0
3. Other ODF	20.8	14.0	21.0	18.1	20.1	12.2	22.0	31.7	15.1	8.0	13.2
Bilateral	13.1	8.0	11.4	12.2	14.0	5.7	5.9	12.8	9.5	5.4	5.3
Multilateral	7.7	5.9	9.6	5.8	6.1	6.5	16.0	18.9	5.6	2.6	7.9
II. Total export credits	**0.6**	**1.0**	**-3.0**	**6.3**	**5.6**	**4.0**	**4.8**	**4.0**	**0.4**	**2.8**	**1.7**
Short-term	-0.8	0.5	-1.5	0.2	0.8	0.5	0.6	0.5	-0.6	0.1	0.2
III. Private flows	**53.0**	**80.1**	**86.3**	**134.7**	**176.0**	**291.7**	**244.9**	**147.2**	**38.4**	**59.7**	**61.5**
1. Direct investment (DAC)	24.8	30.2	41.6	52.1	59.6	69.7	106.7	118.0	18.0	23.1	49.2
To offshore centres	6.5	9.5	9.4	10.8	6.3	16.7	19.1	20.3	4.7	4.8	8.5
2. International bank lending[c]	10.7	34.6	4.8	32.1	76.9	86.0	12.0	-65.0	7.7	14.2	-27.1
Short-term	12.0	25.0	7.0	44.0	40.0	40.0	12.0	-70.0	8.7	19.5	-29.2
3. Total bond lending	4.9	7.5	28.7	32.0	30.0	96.6	83.2	39.8	3.5	14.2	16.6
4. Other (including equities)[d]	7.1	1.8	5.5	12.5	3.5	33.8	37.8	49.1	5.2	5.5	20.5
5. Grants by non-governmental organizations	5.4	6.0	5.7	6.0	6.0	5.6	5.2	5.4	3.9	2.7	2.2
Total net resource flows (I+II+III)	**138.1**	**159.4**	**165.7**	**225.5**	**269.1**	**369.2**	**324.9**	**239.6**	**100.0**	**100.0**	**100.0**
Memorandum items (not included)											
Interest paid by aid recipients[e]	-75.9	-68.0	-64.6	-83.2	-105.0	-103.2	-114.0	-112.2			
Net use of IMF credit[f]	3.6	0.8	3.3	0.6	15.6	0.3	14.4	18.8			
Non-DAC donors (ODA/OA)	2.8	1.1	1.4	1.0	0.8	0.8	0.7	0.6			
For cross reference											
Total DAC net ODA [b g]	56.7	60.8	56.5	59.2	58.9	55.4	48.3	51.9			
Of which: bilateral grants	36.5	34.8	33.4	35.2	36.2	36.5	31.2	32.4			

Source: OECD, *1999 Development Cooperation Report* (Paris, 2000), table 1.

[a] Provisional.

[b] Excluding forgiveness of non-ODA debt for the years 1991 to 1992.

[c] Excluding bond lending by banks (item III.3) and guaranteed financial credits (included in II).

[d] Incomplete reporting from several DAC countries (including France, the United Kingdom and the United States); including Japan from 1996.

[e] Excluding dividends.

[f] Non-concessional flows from the IMF General Resources Account.

[g] Comprises bilateral ODA as above plus contributions to multilateral organizations in place of ODA disbursements from multilateral organizations shown above.

Table 2
Official development assistance performance of OECD/DAC countries, 1996-1998

	Millions of dollars			*Percentage of GNP*[a]			*Percent change*	
	1996	*1997*	*1998*	*1996*	*1997*	*1998*	*1996/97*[b]	*1997/98*[b]
I. *Four countries achieved the 0.7 per cent of GNP target for ODA in 1998*								
Denmark	1 772	1 637	1 704	1.04	0.97	0.99	3.4	4.1
Norway	1 311	1 306	1 321	0.85	0.86	0.91	5.9	8.4
Netherlands	3 246	2 947	3 042	0.81	0.81	0.80	2.7	3.2
Sweden	1 999	1 731	1 573	0.79	0.79	0.72	-2.6	-6.2
II. *Three countries reached 0.35 per cent of GNP for ODA in 1998*								
Luxembourg	82	95	112	0.44	0.55	0.65	30.2	18.1
France	7 451	6 307	5 742	0.48	0.45	0.40	-4.4	-8.7
Belgium	913	764	883	0.34	0.31	0.35	-4.8	15.1
III. *Fourteen countries were below 0.35 per cent of GNP target for ODA in 1998*								
Switzerland	1 026	911	898	0.34	0.34	0.32	4	-2.6
Finland	408	379	396	0.34	0.33	0.32	3.7	5.2
Ireland	179	187	199	0.31	0.31	0.30	8.9	8.6
Canada	1 795	2 045	1 691	0.32	0.34	0.29	15	-11
Japan	9 439	9 358	10 640	0.20	0.22	0.28	9.6	22.6
United Kingdom	3 199	3 433	3 864	0.27	0.26	0.27	-0.4	8.6
Australia	1 074	1 061	960	0.28	0.28	0.27	2.1	6.3
New Zealand	122	154	130	0.21	0.26	0.27	29.9	2.6
Germany	7 601	5 857	5 581	0.33	0.28	0.26	-11.8	-4.2
Spain	1 251	1 234	1 376	0.22	0.24	0.24	11.5	11.2
Portugal	218	250	259	0.21	0.25	0.24	27.2	2.7
Austria	557	527	456	0.24	0.26	0.22	7.6	-13.3
Italy	2 416	1 266	2 278	0.20	0.11	0.20	-43.7	78.4
United States	9 377	6 878	8 786	0.12	0.09	0.10	-28.1	26.5
Total DAC countries	**55 438**	**48 324**	**51 888**	**0.25**	**0.22**	**0.24**	**-5.8**	**9.6**

Source: OECD, *Development Cooperation Report*, 1998 and 1999 editions.

[a] DAC members are progressively introducing the new System of National Accounts; this is leading to slight upward revisions of GNP and corresponding falls in reported ODA/GNP ratios.

[b] Taking account of both inflation and exchange-rate movements.

Table 3
External debt of developing countries
(Billions of United States dollars)

	All developing countries		*Sub-saharan Africa*	
	1997	*1998*	*1997*	*1998*
Total debt stocks	2 316.60	2 465.07	219.44	225.75
Long-term debt	1 782.80	1 957.45	171.07	175.96
Public and publicly guaranteed	1 420.06	1 637.08	163.27	168.50
Private and non-guaranteed	362.74	320.37	7.80	7.45
Short-term debt	463.00	412.16	40.98	42.40
Arrears	115.81	121.01	56.38	56.25
Interest arrears	32.14	33.14	18.34	18.30
Principal arrears	83.67	87.87	38.04	37.95
Debt service	305.28	296.75	13.93	14.49
Debt indicators (percentage)				
Debt service/exports of goods and services	17.00	17.60	12.80	14.90
Total debt/exports of goods and services	129.00	146.20	201.70	232.10
Debt stock/GNP	34.91	37.34	68.05	68.29
Short-term/reserves	71.17	58.95	225.64	212.38

Source: World Bank, *Global Development Finance, 1999*.